Connecting via Winsock to STN

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Welcome to STN International! Enter x:x
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LOGINID: SSSPTA1626GMS

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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Welcome to STN International
NEWS 1
                 Web Page for STN Seminar Schedule - N. America
                 CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS 2 JAN 08
                CA/CAplus Company Name Thesaurus enhanced and reloaded
NEWS 3 JAN 16
                IPC version 2007.01 thesaurus available on STN
NEWS 4 JAN 16
NEWS 5 JAN 16
                WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS 6 JAN 22
                CA/CAplus updated with revised CAS roles
NEWS 7 JAN 22
                CA/CAplus enhanced with patent applications from India
NEWS 8 JAN 29
                PHAR reloaded with new search and display fields
NEWS 9 JAN 29
                CAS Registry Number crossover limit increased to 300,000 in
                 multiple databases
NEWS 10 FEB 15
                PATDPASPC enhanced with Drug Approval numbers
NEWS 11
        FEB 15
                RUSSIAPAT enhanced with pre-1994 records
NEWS 12 FEB 23
                KOREAPAT enhanced with IPC 8 features and functionality
NEWS 13 FEB 26
                MEDLINE reloaded with enhancements
NEWS 14 FEB 26
                EMBASE enhanced with Clinical Trial Number field
NEWS 15
        FEB 26
                TOXCENTER enhanced with reloaded MEDLINE
NEWS 16
                 IFICDB/IFIPAT/IFIUDB reloaded with enhancements
        FEB 26
NEWS 17
                CAS Registry Number crossover limit increased from 10,000
        FEB 26
                 to 300,000 in multiple databases
NEWS 18
        MAR 15
                WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS 19
        MAR 16
                CASREACT coverage extended
NEWS 20
        MAR 20
                MARPAT now updated daily
NEWS 21 MAR 22
                LWPI reloaded
NEWS 22 MAR 30 RDISCLOSURE reloaded with enhancements
NEWS 23 APR 02 JICST-EPLUS removed from database clusters and STN
NEWS 24 APR 30 GENBANK reloaded and enhanced with Genome Project ID field
NEWS 25 APR 30 CHEMCATS enhanced with 1.2 million new records
NEWS 26 APR 30 CA/Caplus enhanced with 1870-1889 U.S. patent records
NEWS 27 APR 30 INPADOC replaced by INPADOCDB on STN
NEWS 28 MAY 01
                New CAS web site launched
NEWS 29 MAY 08
                CA/CAplus Indian patent publication number format defined
NEWS 30 MAY 14
                RDISCLOSURE on STN Easy enhanced with new search and display
                 fields
NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
             MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
             AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
NEWS HOURS
             STN Operating Hours Plus Help Desk Availability
NEWS LOGIN
             Welcome Banner and News Items
NEWS IPC8
             For general information regarding STN implementation of IPC 8
```

Enter NEWS followed by the item number or name to see news on that specific topic.

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=> Uploading

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE Do you want to switch to the Registry File? Choice (Y/n):

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Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FILE REGISTRY

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION

0.21

0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 10:44:19 ON 18 MAY 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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STRUCTURE FILE UPDATES: 17 MAY 2007 HIGHEST RN 935249-87-9 DICTIONARY FILE UPDATES: 17 MAY 2007 HIGHEST RN 935249-87-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

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http://www.cas.org/support/stngen/stndoc/properties.html

=> Uploading C:\Program Files\Stnexp\Queries\10552455.str

```
chain nodes :
7  8  9  10  11  13  14  16  18  20  21
ring nodes :
1  2  3  4  5  6
chain bonds :
1-18  3-21  4-20  6-7  7-8  8-9  9-10  9-13  10-11  10-14  10-16
ring bonds :
1-2  1-5  2-3  3-4  3-6  4-5  4-6
exact/norm bonds :
1-2  1-5  1-18  2-3  3-4  3-6  3-21  4-5  4-6  4-20  6-7  7-8  8-9  9-13  10-11
10-14  10-16
exact bonds :
9-10
isolated ring systems :
containing 1 :
```

G1:0,N,NH

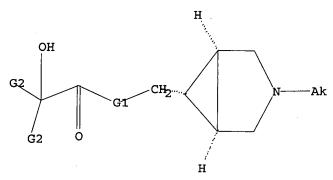
G2:Cb,Ak,CH3

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 13:CLASS 14:CLASS 16:CLASS 18:CLASS 20:CLASS 21:CLASS

L1 STRUCTURE UPLOADED

=> d l1 L1 HAS NO ANSWERS L1 STR



G1 O, N, NH G2 Cb, Ak, Me

Structure attributes must be viewed using STN Express query preparation.

SAMPLE SEARCH INITIATED 10:44:37 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED -19 TO ITERATE

100.0% PROCESSED

19 ITERATIONS

9 ANSWERS

216 ANSWE

TOTAL

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS:

119 TO 641

PROJECTED ANSWERS:

9 TO 360

L2 9 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 10:44:43 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED -

380 TO ITERATE

100.0% PROCESSED

380 ITERATIONS

SEARCH TIME: 00.00.01

216 SEA SSS FUL L1

=> FIL HCAPLUS

L3

COST IN U.S. DOLLARS

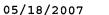
SINCE FILE

ENTRY SESSION

FULL ESTIMATED COST 172.10 172.31

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FILE COVERS 1907 - 18 May 2007 VOL 146 ISS 22 FILE LAST UPDATED: 15 May 2007 (20070515/ED)

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This file contains CAS Registry Numbers for easy and accurate

=> s 13 L4 6 L3 => s 14 and py<=2.004 25032780 PY<=2004 L5 2 L4 AND PY<=2.0.04

=> FIL REGISTRY COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 10.40 182.71

FULL ESTIMATED COST

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STRUCTURE FILE UPDATES: 17 MAY 2007 HIGHEST RN 935249-87-9 DICTIONARY FILE UPDATES: 17 MAY 2007 HIGHEST RN 935249-87-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

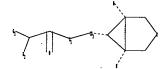
TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

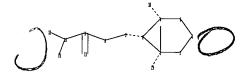
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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

Uploading C:\Program Files\Stnexp\Queries\10552455a.str





chain nodes :

7 8 9 10 11 13 15 18 19

ring nodes :

1 2 3 4 5 6

chain bonds :

3-19 4-18 6-7 7-8 8-9 9-10 9-13 10-11 10-15

ring bonds :

1-2 1-5 2-3 3-4 3-6 4-5 4-6

exact/norm bonds :

1-2 1-5 2-3 3-4 3-6 3-19 4-5 4-6 4-18 6-7 7-8 8-9 9-13 10-11 10-15

exact bonds :

9-10

isolated ring systems :

containing 1 :

G1:0,N,NH

G2:Cb,Ak,CH3

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS

11:CLASS 13:CLASS 15:CLASS 18:CLASS 19:CLASS

L6 STRUCTURE UPLOADED

=> s 16

SAMPLE SEARCH INITIATED 10:47:45 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED -59 TO ITERATE

100.0% PROCESSED SEARCH TIME: 00.00.01 59 ITERATIONS

16 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 720 TO 1640 560

PROJECTED ANSWERS: 80 TO

Ь7 16 SEA SSS SAM L6

=> s 16 sss full

FULL SEARCH INITIATED 10:47:52 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED -1244 TO ITERATE

100.0% PROCESSED 1244 ITERATIONS 323 ANSWERS

SEARCH TIME: 00.00.01

L8 323 SEA SSS FUL L6

=> FIL HCAPLUS

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 172.10 354.81

FULL ESTIMATED COST

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=> d his

(FILE 'HOME' ENTERED AT 10:43:40 ON 18 MAY 2007)

FILE 'REGISTRY' ENTERED AT 10:44:19 ON 18 MAY 2007

T.1 STRUCTURE UPLOADED

L2 9 S L1

216 S L1 SSS FULL L3

FILE 'HCAPLUS' ENTERED AT 10:44:53 ON 18 MAY 2007

L46 S L3

L5 2 S L4 AND PY<=2004

FILE 'REGISTRY' ENTERED AT 10:47:18 ON 18 MAY 2007

L6 STRUCTURE UPLOADED

L7 16 S L6 L8

323 S L6 SSS FULL

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FILE 'HCAPLUS' ENTERED AT 10:47:59 ON 18 MAY 2007
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=> s 18L9

=> d 15 ibib abs hitstr tot

L5 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2007 ACS ∕on STN

ACCESSION NUMBER: DOCUMENT NUMBER:

2004:182839 HCAPLUS 140:235609

TITLE:

Fluoro- and sulfonylamino-containing 3,6-disubstituted azabicyclo[3.1.0] hexane derivatives as muscarinic

receptor antagonists

INVENTOR(S): PATENT ASSIGNEE(S): SOURCE:

Mehta, Anita; Gupta, Jang Bahadur Ranbaxy Laboratories Limited, India

PCT Int. Appl., 68 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	TENT	NO.			KIND DATE				APPLICATION NO.				DATE						
WO	WO 2004018422					A1 20040304				WO 2002-IB3433					20020823 <				
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•		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC.	EE.	ES.	FI.	GB.	GD.	GE.	GH.		
		GM,	HR,	HU,	ID,	IL,	IN.	is,	JP.	KE.	KG.	KP.	KR.	K7.	LC.	T.K	T.P		
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		PL,	PT,	RO,	RU.	SD.	SE.	SG,	SI.	SK.	SL.	T.I.	TM.	TN.	TR	тт Тт	TZ		
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	RW:	GH.	GM.	KE.	LS.	MW.	MZ.	SD,	SI.	S7.	T7	IIG	7.M	7.W	ΔM	7 7	вv		
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								LU,											
								GW,							Dr,	ъо,	CF,		
IΙΔ	2002														2.	0000			
						AU 2002-326072 EP 2002-760461													
	P 1534675							GB, GR, IT, LI, LU,											
	к.															MC,	PT,		
CN	1.000		51,	LT,				MK,											
	CN 1688544 JP 2006501236									CN 2002-829770									
					JP 2004-530408														
US	A1 20060105			1	US 2005-525439						20050801								
PRIORITY					1	WO 2002-IB3433						A 20020823							
OTHER SO	CASI	REAC	T 14	0:23	5609	609; MARPAT 140:235609													

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

This invention relates to 3,6-disubstituted azabicyclo[3.1.0]hexane derivs. of formula I [wherein: Ar = (un) substituted (hetero) aryl; R1 = H, OH, CH2OH, NH2, alkoxy, carbamoyl, or halogen; R2 = C3-C7 cycloalkyl ring with 1-4 hydrogens substituted by fluorine atoms, or sulfonamide derivs.; R3 = C1-C15 (un) saturated (un) substituted hydrocarbon group; R4 and R5 are selected from H, Me, CO2H, C(0)NH2, NH2, CH2NH2; W = (CH2)0-1; X = 0, S, N, bond; Y = CH(R')CO(R' = H or Me) or (CH2)0-4; Z = O, S, NR'' (R'' = H)

CN

or alkyl); Q = (CH2)1-4, CHR''' (R''' = H, OH, alkyl, alkenyl, alkoxy), or CH2CHR'''' (R'''' = H, OH, alkyl, alkoxy)] useful as muscarinic receptor antagonists. Compds. I are useful for the treatment of various muscarinic receptor-mediated respiratory, urinary, and gastrointestinal system diseases; the affinity of test compds. for M2 and M3 muscarinic receptor subtypes was tested. For instance, compound II [example 2; pKi = 6.9/8.4 for the M2 and M3 receptor subtypes resp.] was prepared via amidation of phenylacetic acid derivative III by azabicyclo[3.1.0]hexane derivative IV (no yield data).

IT 666835-75-2P 666835-76-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of fluoro- and sulfonylamino-containing 3,6-disubstituted azabicyclo[3.1.0]hexane derivs. as muscarinic receptor antagonists)

RN 666835-75-2 HCAPLUS

Benzeneacetamide, α -(3-azidocyclopentyl)- α -hydroxy-N-[[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (α R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 666835-76-3 HCAPLUS

CN Benzeneacetamide, α -(3-aminocyclopentyl)- α -hydroxy-N-[[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (α R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 666835-57-0P 666835-60-5P 666835-65-0P 666835-72-9P 666835-77-4P 666835-78-5P 666835-79-6P 666835-80-9P 666835-81-0P 667427-00-1P 667427-01-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of fluoro- and sulfonylamino-containing 3,6-disubstituted azabicyclo[3.1.0]hexane derivs. as muscarinic receptor antagonists) 666835-57-0 HCAPLUS

Benzeneacetamide, α -[(1R)-3,3-difluorocyclopentyl]- α -hydroxy-N-[[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (α R)- (9CI) (CA INDEX NAME)

RN

Absolute stereochemistry.

RN 666835-60-5 HCAPLUS

CN Benzeneacetamide, α -(3-fluorocyclopentyl)- α -hydroxy-N-[[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (α R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 666835-65-0 HCAPLUS

CN Benzeneacetamide, α -(3,3-difluorocyclopentyl)- α -hydroxy-N-[[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 666835-72-9 HCAPLUS

CN Benzeneacetamide, α -hydroxy- α -[(1 α ,5 α ,6 α)-3-[(phenylacetyl)amino]cyclopentyl]-N-[[3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (α R)- (9CI) (CA INDEX NAME)

RN 666835-77-4 HCAPLUS

CN Benzeneacetamide, α -hydroxy- α -[3-[[(4-nitrophenyl)sulfonyl]amino]cyclopentyl]-N-[[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (α R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 666835-78-5 HCAPLUS

CN Benzeneacetamide, α -hydroxy-N-[[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]- α -[3-[(phenylsulfonyl)amino]cyclopentyl]-, (α R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 666835-79-6 HCAPLUS

CN Benzeneacetamide, α -hydroxy- α -[3-[[(phenylmethoxy)acetyl]amino]cyclopentyl]-N-[[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (α R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 666835-80-9 HCAPLUS

CN Benzeneacetamide, α -hydroxy- α -[3-[[(4-methoxyphenyl)sulfonyl]amino]cyclopentyl]-N-[[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (α R)- (9CI) (CA INDEX NAME)

RN 666835-81-0 HCAPLUS

CN Benzeneacetamide, α -[3-[[(4-bromophenyl)sulfonyl]amino]cyclopentyl]- α -hydroxy-N-[[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (α R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 667427-00-1 HCAPLUS

CN Benzeneacetamide, α -[(1S)-3,3-difluorocyclopentyl]- α -hydroxy-N-[[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (α R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 667427-01-2 HCAPLUS

CN Benzeneacetamide, α -(3-fluorocyclopentyl)- α -hydroxy-N-[[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

REFERENCE COUNT:

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

6

ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2004:41201 HCAPLUS DOCUMENT NUMBER: 140:111279 Preparation of 3.6-disubstituted azabicyclo[3.1.0]hexane derivatives useful as TITLE: muscarinic receptor antagonists INVENTOR(S): Mehta, Anita; Silamkoti, Arundutt V.; Gupta, Jang Bahadur PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India SOURCE: PCT Int. Appl., 72 pp. CODEN: PIXXD2 DOCUMENT TYPE: Patent

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.					KIND DATE					APPL	ICAT	ION I	DATE					
	WO 2004004629				A2		2004 0 115 WO 2002-IB2663											
WO	2004004629			A3		2004												
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		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NO,	NZ,	OM,	PH,	
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	ΤŅ,	TR,	TT,	TZ,	
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	RW:	GH,	GM,	KΕ,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZM,	ZW,	AM,	ΑZ,	BY,	
		KG,	KZ,	MD,	RU,	ТJ,	TM,	ΑT,	ΒE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	
		FΙ,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	SK,	TR,	BF,	ВJ,	CF,	
		CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG				
CA	A 2492121				A1		2004	0115	. •	CA 2	002-		20020708 <					
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NZ	NZ 537584				Α		2006	0728]	NZ 2	002-		20020708					
CA	CA 2491998				A1		2004	0115		CA 2	003-:		20030411 <					
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AB This invention generally relates to the derivs. of novel 3,6 disubstituted azabicyclo[3.1.0] hexanes. The title compds. [I; Ar = each (un) substituted aryl or heteroaryl having 1-2 hetero atoms selected from the group consisting of O, S and N atoms; R1 = H, HO, hydroxymethyl, amino, alkoxy, carbamoyl or halogen (e.g. F, Cl, Br, iodo); R2 = alkyl, C3-7 cycloalkyl, C3-7 cycloalkenyl, each (un)substituted aryl or heteroaryl having 1 to 2 hetero atoms selected from a group consisting of O, S and N atoms; W = (CH2)p (where p = 0, 1); X = 0, S, N, no atom; $\bar{Y} = 0$ CHR5CO (wherein R5 = H, Me) or (CH2)q (wherein q = 0-4); Z = 0, S, NR10 (wherein R10 = H, C1-6 alkyl); Q = (CH2)n (wherein n = 0-4), or CHR5 (wherein R5 = H, OH, C1-6 alkyl, alkenyl alkoxy) or CH2CHR9 (wherein R9 = H, OH, C1-4 alkyl, C1-C4 alkoxy); R6, R7 = CO2H, H, Me, CONH2, NH2, CH2NH2; R4 = (un) substituted C1-15 saturated or unsatd. aliphatic hydrocarbon groups], pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs, prodrugs, or metabolites thereof are prepared These compds., e.q. $(1\alpha, 5\alpha, 6\alpha)$ -N-[[3-benzyl-3-azabicyclo[3.1.0]hexyl-6yl]methyl]-2-hydroxy-2,2-diphenylacetamide, $(1\alpha,5\alpha,6\alpha)$ -N-[[3-benzyl-3-azabicyclo[3.1.0]hexyl-6-yl]methyl]-2-hydroxy-2-cyclohexyl-2phenylacetamide, $(1\alpha, 5\alpha, 6\alpha)$ -N-[[3-benzyl-3azabicyclo[3.1.0]hexyl-6-yl]methyl]-2-hydroxy-2-cyclopentyl-2phenylacetamide, $(1\alpha, 5\alpha, 6\alpha)$ - [[3-benzyl-3azabicyclo[3.1.0]hexyl-6-yl]methyl] 2-hydroxy-2,2-diphenylacetate, and are muscarinic receptor antagonists which are useful, inter-alia for the treatment or prophylaxis of various diseases or disorders of the respiratory, urinary and gastrointestinal systems mediated through muscarinic receptors. In particular, the diseases or disorders are urinary incontinence, lower urinary tract symptoms (LUTS), bronchial asthma, chronic obstructive pulmonary disorders (COPD), pulmonary fibrosis, irritable bowel syndrome, obesity, and diabetes or gastrointestinal hyperkinesis. IT 646035-38-3P 646035-39-4P 646035-40-7P 646035-41-8P 646035-42-9P 646035-43-0P 646035-44-1P 646035-45-2P 646035-46-3P 646035-47-4P 646035-48-5P 646035-49-6P 646035-50-9P 646035-51-0P 646035-52-1P 646035-53-2P 646035-54-3P 646035-55-4P 646035-56-5P 646035-57-6P 646035-58-7P 646035-59-8P 646035-60-1P 646035-61-2P 646035-62-3P 646035-63-4P 646035-64-5P 646035-65-6P 646035-66-7P 646035-67-8P

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Absolute stereochemistry.

RN 646035-39-4 HCAPLUS

CN Benzeneacetamide, α -cyclohexyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-40-7 HCAPLUS

CN Benzeneacetamide, α -cyclopentyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-41-8 HCAPLUS

CN Benzeneacetic acid, α -hydroxy- α -phenyl-, [$(1\alpha, 5\alpha, 6\alpha)$ -3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-

yl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-42-9 HCAPLUS

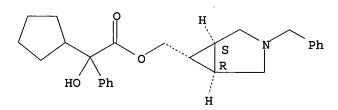
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Absolute stereochemistry.

RN 646035-43-0 HCAPLUS

CN Benzeneacetic acid, α -cyclopentyl- α -hydroxy-, [(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 646035-44-1 HCAPLUS

Benzeneacetic acid, α -cyclohexyl- α -hydroxy-, [(1 α ,5 α ,6 α)-3-[2-(2,3-dihydro-5-benzofuranyl)ethyl]-3-azabicyclo[3.1.0]hex-6-yl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CN

RN 646035-45-2 HCAPLUS

CN Benzeneacetic acid, α -cyclopentyl- α -hydroxy-, [$(1\alpha, 5\alpha, 6\alpha)$ -3-[2-(2, 3-dihydro-5-benzofuranyl)ethyl]-3-azabicyclo[3.1.0]hex-6-yl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-46-3 HCAPLUS

CN Benzeneacetamide, α -cyclohexyl-N-[[(1 α ,5 α ,6 α)-3-[2-(2,3-dihydro-5-benzofuranyl)ethyl]-3-azabicyclo[3.1.0]hex-6-yl]methyl]- α -hydroxy-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-47-4 HCAPLUS

CN Benzeneacetamide, α -cyclopentyl-N-[[(1 α ,5 α ,6 α)-3-[2-(2,3-dihydro-5-benzofuranyl)ethyl]-3-azabicyclo[3.1.0]hex-6-yl]methyl]- α -hydroxy- (9CI) (CA INDEX NAME)

RN 646035-48-5 HCAPLUS CN Benzeneacetic acid, α -cyclopentyl- α -hydroxy-, [$(1\alpha, 5\alpha, 6\alpha)$ -3-[2-(1, 3-benzodioxol-5-yl)ethyl]-3-azabicyclo[3.1.0]hex-6-yl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-49-6 HCAPLUS CN Benzeneacetic acid, α -cyclohexyl- α -hydroxy-, $[(1\alpha,5\alpha,6\alpha)-3-[2-(1,3-benzodioxol-5-yl)ethyl]-3-azabicyclo[3.1.0]hex-6-yl]methyl ester (9CI) (CA INDEX NAME)$

Absolute stereochemistry.

RN 646035-50-9 HCAPLUS CN Benzeneacetamide, N-[[(1 α ,5 α ,6 α)-3-[2-(1,3-benzodioxol-5-yl)ethyl]-3-azabicyclo[3.1.0]hex-6-yl]methyl]- α -cyclopentyl- α -hydroxy- (9CI) (CA INDEX NAME)

RN 646035-51-0 HCAPLUS

CN Benzeneacetamide, N-[[(1α , 5α , 6α)-3-[2-(1,3-benzodioxol-5-yl)ethyl]-3-azabicyclo[3.1.0]hex-6-yl]methyl]- α -cyclohexyl- α -hydroxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-52-1 HCAPLUS

CN Benzeneacetamide, α -cyclohexyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(4-methyl-3-pentenyl)-3- azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-53-2 HCAPLUS

CN Benzeneacetamide, α -cyclopentyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(4-methyl-3-pentenyl)-3- azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

RN 646035-54-3 HCAPLUS

CN Benzeneacetic acid, α -cyclohexyl- α -hydroxy-, [$(1\alpha, 5\alpha, 6\alpha)$ -3-(4-methyl-3-pentenyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-55-4 HCAPLUS

CN Benzeneacetic acid, α -cyclopentyl- α -hydroxy-, [$(1\alpha, 5\alpha, 6\alpha)$ -3-(4-methyl-3-pentenyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-56-5 HCAPLUS

CN Benzeneacetic acid, α -cyclopentyl- α -hydroxy-, [(1 α ,5 α ,6 α)-3-(1-phenylethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl ester (9CI) (CA INDEX NAME)

RN 646035-57-6 HCAPLUS

CN Benzeneacetic acid, α -cyclohexyl- α -hydroxy-, [(1 α ,5 α ,6 α)-3-(1-phenylethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-58-7 HCAPLUS

CN Benzeneacetamide, α -cyclohexyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(1-phenylethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-59-8 HCAPLUS

CN Benzeneacetamide, α -cyclopentyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(1-phenylethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-60-1 HCAPLUS

CN Benzeneacetamide, α -hydroxy-N-[[(1 α ,5 α ,6 α)-3-(1-methyl-2-phenylethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]- α -phenyl-(9CI) (CA INDEX NAME)

RN 646035-61-2 HCAPLUS

CN Benzeneacetamide, α -cyclohexyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(1-methyl-2-phenylethyl)-3- azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-62-3 HCAPLUS

CN Benzeneacetamide, α -cyclopentyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(1-methyl-2-phenylethyl)-3- azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-63-4 HCAPLUS

CN Benzeneacetic acid, α -cyclohexyl- α -hydroxy-, [(1 α ,5 α ,6 α)-3-(3-methyl-2-butenyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl ester (9CI) (CA INDEX NAME)

RN 646035-64-5 HCAPLUS

CN Benzeneacetic acid, α -cyclopentyl- α -hydroxy-, [$(1\alpha, 5\alpha, 6\alpha)$ -3-(3-methyl-2-butenyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

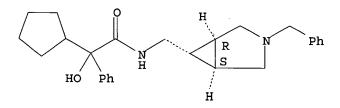
RN 646035-65-6 HCAPLUS

CN Benzeneacetamide, α -cyclopentyl- α -hydroxy-N-[[(1R,5S)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 646035-40-7 CMF C26 H32 N2 O2

Absolute stereochemistry.



CM 2

CRN 87-69-4 CMF C4 H6 O6

CN

RN 646035-66-7 HCAPLUS

Benzeneacetamide, α -cyclobutyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-67-8 HCAPLUS

CN Benzeneacetamide, α -cyclopropyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-68-9 HCAPLUS

CN Benzeneacetamide, α -cyclohexyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(3-methyl-2-butenyl)-3- azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-69-0 HCAPLUS

CN Benzeneacetic acid, α -cyclopentyl- α -hydroxy-,

[$(1\alpha, 5\alpha, 6\alpha)$ -3-(1, 3-benzodioxol-5-ylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-70-3 HCAPLUS

CN Benzeneacetic acid, α -cyclopentyl- α -hydroxy-, [(1R,5S)-3-[2-(1,3-benzodioxol-5-yl)ethyl]-3-azabicyclo[3.1.0]hex-6-yl]methyl ester, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 646035-48-5 CMF C28 H33 N O5

Absolute stereochemistry.

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

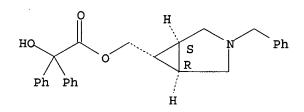
RN 646035-71-4 HCAPLUS

CN Benzeneacetic acid, α -hydroxy- α -phenyl-, [(1R,5S)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl ester, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 646035-41-8 CMF C27 H27 N O3

Absolute stereochemistry.



CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

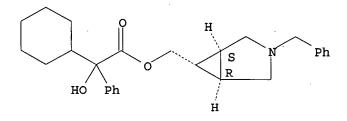
RN 646035-73-6 HCAPLUS

CN Benzeneacetic acid, α -cyclohexyl- α -hydroxy-, [(1R,5S)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl ester, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 646035-42-9 CMF C27 H33 N O3

Absolute stereochemistry.



CM 2

CRN 87-69-4 CMF C4 H6 O6

RN 646035-75-8 HCAPLUS

Benzeneacetic acid, α -cyclopentyl- α -hydroxy-, [(1R,5S)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl ester, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CN

CRN 646035-43-0 CMF C26 H31 N O3

Absolute stereochemistry.

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 646035-77-0 HCAPLUS

Benzeneacetamide, α -cyclohexyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(3-pyridinylmethyl)-3- azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CN

RN 646035-78-1 HCAPLUS

CN Benzeneacetamide, α -cyclohexyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(4-pyridinylmethyl)-3- azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-80-5 HCAPLUS

CN Benzeneacetamide, α -cyclohexyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(2-pyridinylmethyl)-3- azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-81-6 HCAPLUS

CN Benzeneacetamide, α -cyclopentyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(4-pyridinylmethyl)-3- azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

RN 646035-82-7 HCAPLUS CN Benzeneacetamide, α -hydroxy- α -phenyl-N- [[(1 α ,5 α ,6 α)-3-(3-pyridinylmethyl)-3 azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-83-8 HCAPLUS CN Benzeneacetamide, α -hydroxy- α -phenyl-N-[[(1 α ,5 α ,6 α)-3-(4-pyridinylmethyl)-3azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-84-9 HCAPLUS CN Benzeneacetamide, α -hydroxy- α -phenyl-N- [[(1 α ,5 α ,6 α)-3-(2-pyridinylmethyl)-3- azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-85-0 HCAPLUS CN Benzeneacetamide, α -cyclopentyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(2-pyridinylmethyl)-3 azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

RN 646035-86-1 HCAPLUS

CN Benzeneacetamide, α -cyclopentyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(3-pyridinylmethyl)-3- azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-87-2 HCAPLUS

CN Benzeneacetamide, α -cyclopentyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(3-methyl-2-butenyl)-3- azabicyclo[3.1.0]hex-6-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-88-3 HCAPLUS

CN Benzeneacetamide, N-[[(1α , 5α , 6α) -3-(1, 3-benzodioxol-5-ylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]- α -cyclopentyl- α -hydroxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-89-4 HCAPLUS

CN Benzeneacetamide, N-[[(1α , 5α , 6α)-3-(1, 3-benzodioxol-5-

ylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]- α -cyclohexyl- α -hydroxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646035-90-7 HCAPLUS

CN Benzeneacetic acid, α -cyclohexyl- α -hydroxy-, [(1R,5S)-3-(4-methyl-3-pentenyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl ester, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 646035-54-3 CMF C26 H37 N O3

Absolute stereochemistry.

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 646035-91-8 HCAPLUS

CN Benzeneacetic acid, α -cyclohexyl- α -hydroxy-, [(1R,5S)-3-[2-(1,3-benzodioxol-5-yl)ethyl]-3-azabicyclo[3.1.0]hex-6-yl]methyl ester, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

·10552455.trn

CRN 646035-49-6 CMF C29 H35 N O5

Absolute stereochemistry.

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 646035-92-9 HCAPLUS

CN Benzeneacetic acid, α -cyclopentyl- α -hydroxy-, [(1R,5S)-3-(1-phenylethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl ester, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 646035-56-5 CMF C27 H33 N O3

Absolute stereochemistry.

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 646035-93-0 HCAPLUS

CN Benzeneacetamide, α -cyclopentyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

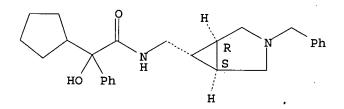
RN 646035-94-1 HCAPLUS

CN Butanedioic acid, hydroxy-, (2S)-, compd. with α -cyclopentyl- α -hydroxy-N-[[(1R,5S)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]benzeneacetamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 646035-40-7 CMF C26 H32 N2 O2

Absolute stereochemistry.



CM 2

CRN 97-67-6 CMF C4 H6 O5

Absolute stereochemistry. Rotation (-).

$$HO_2C$$
 S CO_2H OH

RN 646035-95-2 HCAPLUS

CN Benzeneacetamide, α -cyclopentyl- α -hydroxy-N-[[(1R,5S)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (2Z)-2-butenedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 646035-40-7 CMF C26 H32 N2 O2

Absolute stereochemistry.

CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 646523-26-4 HCAPLUS

CN Benzeneacetamide, α -cyclohexyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (α R)- (9CI) (CA INDEX NAME)

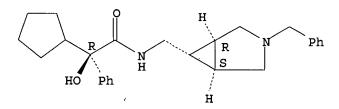
Absolute stereochemistry. Rotation (+).

RN 646523-27-5 HCAPLUS

CN Benzeneacetamide, α -cyclopentyl- α -hydroxy-N-

[[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (α R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 646523-28-6 HCAPLUS

CN Benzeneacetic acid, α -cyclohexyl- α -hydroxy-, [(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl ester, (α R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 646523-29-7 HCAPLUS

CN Benzeneacetic acid, α -cyclopentyl- α -hydroxy-, [(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl ester, (α R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 646523-30-0 HCAPLUS

CN Benzeneacetamide, α -cyclopentyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 646523-31-1 HCAPLUS

CN Benzeneacetic acid, α -cyclopentyl- α -hydroxy-, [(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl ester, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

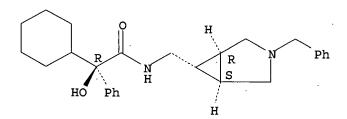
RN 646523-32-2 HCAPLUS

CN Benzeneacetamide, α -cyclohexyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (α R)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 646523-26-4 CMF C27 H34 N2 O2

Absolute stereochemistry. Rotation (+).



CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

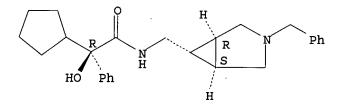
RN 646523-33-3 HCAPLUS

CN Benzeneacetamide, α -cyclopentyl- α -hydroxy-N- [[(1 α ,5 α ,6 α)-3-(phenylmethyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-, (α R)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 646523-27-5 CMF C26 H32 N2 O2

Absolute stereochemistry. Rotation (+).



CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

=> d l4 ibib abs tot

L4 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2007:464247 HCAPLUS

TITLE:

Pharmaceutical compositions of muscarinic receptor

antagonists

INVENTOR(S):

Ray, Abhijit; Dastidar, Sunanda G.; Shirumalla,

Rajkumar; Malhotra, Shivani

PATENT ASSIGNEE(S):

Ranbaxy Laboratories Ltd., India

SOURCE:

PCT Int. Appl., 100pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO. KIND I

WO 2007045979 A1

W: AE, AG, AL, AM, AT, CN, CO, CR, GU, CZ, GE, GH, GM, GT, HN, KP, KR, KZ, LA, LC, MN, MW, MX, MY, MZ,

007045979

A1 20070426 WO 2006-IB2930 20061019
W: AE, AG, AL, AM, AT, CAL, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, GU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,

APPLICATION NO.

DATE

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IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KC, KZ, MD, BH, TT, TM.

KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: IN 2005-DE2794 A 20051019
AB Pharmaceutical compns. are provided comprising one or more muscarinic

DATE

receptor antagonists (MRA), and at least one addnl. active ingredients selected from one or more β2-agonists, p38 MAP kinase inhibitors, PDE-IV inhibitors, corticosteroids, etc., or a mixture thereof and optionally one or more pharmaceutically acceptable carriers, excipients or diluents. In addition, methods of treating autoimmune, inflammatory or allergic diseases or disorders are provided. For example, a synergistic effect was observed with the combination of muscarinic antagonist (2R)-(1a,5a,6a)-N-[3-azabicyclo[3.1.0]hexyl-6-(aminomethyl)-yl]-2-hydroxy-2-cyclopentyl 2-phenylacetamide hydrochloride (Compound 66) with PDE-IV inhibitor roflumilast for relaxing carbachol-precontracted guinea pig isolated trachea.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2006:1174148 HCAPLUS

DOCUMENT NUMBER:

145:471412

TITLE:

Preparation of 3,6-disubstituted

azabicyclo[3.1.0] hexane derivatives as muscarinic receptor antagonists for use against respiratory,

urinary and gastrointestinal diseases

INVENTOR(S):

Salman, Mohammad; Kumar, Naresh; Kaur, Kirandeep; Aeron, Shelly; Sarma, Pakala Kumara Savithru; Dharmarajan, Sankaranarayanan; Mehta, Anita; Chugh,

Anita

PATENT ASSIGNEE(S):

Ranbaxy Laboratories Limited, India

SOURCE:

PCT Int. Appl., 79pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

WO 2006117754 A1 20061109 WO 2006-IB51368 20060501

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,

GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

IN 2005-DE1810 A 20050503 IN 2006-DE1681 A 20060328

OTHER SOURCE(S):

MARPAT 145:471412

GI

$$R^2$$
 W CO X Q R ? n R ? n R 4 I

AB The present invention generally relates to azabicyclo[3.1.0] hexane derivs. (shown as I; variables defined below; e.g. N-(3-benzyl-3azabicyclo[3.1.0]hex-6-yl)-2-hydroxy-2-phenyl-2-(2-thienyl)acetamide (1)) as muscarinic receptor antagonists, which are useful, among other uses, for the treatment of various diseases of the respiratory, urinary and gastrointestinal systems mediated through muscarinic receptors. The invention also relates to the process for the preparation of disclosed compds., pharmaceutical compns. containing the disclosed compds., and the methods for treating diseases mediated through muscarinic receptors. For I: R1 is H or alkyl; R2 is straight or branched alkyl alkenyl, alkynyl, aryl, cycloalkyl, cycloalkylalkyl or heteroaryl (un)substituted with ≥1 alkyl, hydroxy or halogen. R3 is aryl or heteroaryl (un) substituted with ≥1 alkyl, hydroxy or halogen; W = -(CH2)i; Q = -(CH2)j; X is O or -N(R5)-; R4 is H, straight or branched alkyl, straight or branched alkenyl, aralkyl or heteroarylalkyl wherein the said aralkyl or heteroarylalkyl is further substituted with alkyl, -NH2 or alkoxycarbonylamino; R5 is H or alkyl; Rw is H or Me; and n, i, j = 0-2. Results of radioligand binding assays for M2 and M3 muscarinic receptors are reported for many examples of I. Methods of preparation are claimed and prepns. and/or characterization data for .apprx.120 examples of I are included. For example, 1 was prepared from hydroxy(phenyl)(thien-2yl)acetic acid and 3-benzyl-3-azabicyclo[3.1.0]hexan-6-amine in DMF using hydroxybenzotriazole, N-methylmorpholine and 1-ethyl-3-(3dimethylaminopropyl) carbodiimide.

REFERENCE COUNT:

10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2006:318950 HCAPLUS

DOCUMENT NUMBER:

144:369923

TITLE:

3-Azabicyclo[3.1.0] hexane derivatives as muscarinic receptor antagonists and their preparation, pharmaceutical compositions, and use for treatment of prophylaxis of of respiratory, urinary, or gastrointestinal diseases

INVENTOR(S):

SOURCE:

GΙ

Mehta, Anita: Salman, Mohammad; Sarma, Pakala Kumara Savithru: Aeron, Shelley; Chugh, Anita; Gupta, Suman Ranbaxy Laboratories Limited, India

PCT Int. Appl., 54 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT ASSIGNEE(S)

PATENT	NO.	KIND D	ATE	APPL	ICATION 1	DATE				
WO 2006 WO 2006			0060406 0060518		005-IB28	38	20050926			
W:		AM, AT, CU, CZ, HR, HU, LS, LT, NO, NZ,	AU, AZ, DE, DK, ID, IL, LU, LV, OM, PG,	BA, BB, DM, DZ, IN, IS, LY, MA, PH, PL,	EC, EE, JP, KE, MD, MG, PT, RO,	EG, ES, KG, KM, MK, MN, RU, SC,	FI, GB, KP, KR, MW, MX, SD, SE,	GD, KZ, MZ, SG,		
RW:	YU, ZA, ZM, AT, BE, BG, IS, IT, LT, CF, CG, CI, GM, KE, LS, KG, KZ, MD,	CH, CY, LU, LV, CM, GA, MW, MZ,	MC, NL, GN, GQ, NA, SD,	PL, PT, GW, ML,	RO, SE, MR, NE,	SI, SK, SN, TD,	TR, BF, TG, BW,	BJ, GH,		
PRIORITY APP				004-DE184	19	A 200409	27			

AB This invention generally relates to muscarinic receptor antagonists of formula I, which are useful, among other uses, for the treatment of various diseases of the respiratory, urinary and gastrointestinal systems mediated through muscarinic receptors. The invention also relates to the process for the preparation of disclosed compds., pharmaceutical compns. containing

05/18/2007

the disclosed compds., and the methods for treating diseases mediated through muscarinic receptors. Compds. of formula I wherein R1 is H, C1-6 alkyl, C2-7 alkenyl, C2-7 alkynyl, cycloalkyl, (un)substituted amino, or OH and derivs.; R2 is carboxy, SO2R6, CO2R7, NH2 and derivs., or CONH2 and derivs., etc.; R3 is alkyl, alkenyl, alkynyl, cycloalkyl, (hetero)aryl, aralkyl, or heterocyclyl(alkyl); R4 and R5 are independently H, C1-6 alkyl, C2-7 alkenyl, or C2-7 alkynyl; X is O, NH and derivs., C1-6 alkyl, C2-7 alkenyl, C2-7 alkynyl, aralkyl, or aryl; Ar is (hetero)aryl or heterocyclyl; and their stereoisomers, polymorphs, pharmaceutically acceptable salts, and solvates thereof and methods for preparation are claimed. Example compound II was prepared by sulfonylation of N- $(1\alpha, 5\alpha, 6\alpha)$ - (3-azabicyclo[3.1.0] hex-6-ylmethyl) -2cyclopentyl-2-hydroxy-2-Ph acetamide with p-nitrophenylsulfonyl chloride. All the invention compds. were evaluated for their binding affinity towards muscarinic receptors. From the assay, it was determined that most of the invention compds. exhibited Ki values for M2 and M3 muscarinic receptors in the range of about 1000 nM to about 7.8 nM and 1000 nM_to about 0.5 nM, resp.

L4 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2005:1075634 HCAPLUS

DOCUMENT NUMBER: TITLE:

143:373316

Combination therapy using adrenergic receptor antagonist in combination with muscarinic receptor aptagonists and testosterone 5-reductase inhibitors

for lower urinary tract symptoms

INVENTOR (S):

Chugh, Anita Tiwari, Atul

PATENT ASSIGNEE(S): SOURCE:

Ranbaxy Laboratories Limited, India

PCT Int. Appl., 24 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

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PATENT NO.
                                             KIND
                                                             DATE"
                                                                                        APPLICATION NO.
                                                                                                                                            DATE
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WO 2005092341
                                                             20051006
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                                                                                      WO 2004-IB842
                                                                                                                                            20040322
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EP 1746998
                                               A1
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WO 2005092342
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                                               A1
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                 TD, TG
       IN 2006DN06061
                                  Α
                                           20070427
                                                           IN 2006-DN6061
PRIORITY APPLN. INFO.:
                                                          WO 2004-IB842
                                                                                     W 20040322
      This invention relates to combination therapy for the treatment of benign
      prostatic hyperplasia (BPH) and lower urinary tract symptoms (LUTS)
       associated with or without BPH. The combination therapy comprises of
       1α adrenergic receptor (AR) subtype selective antagonist in
       combination with muscarinic receptor antagonist and optionally included
      Testosterone 5-reductase inhibitor for relief of LUTS in a subject with or
      without BPH.
REFERENCE COUNT:
                                 9
                                         THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS
                                         RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
      ANSWER 5 OF 6
                          HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:
                                 2004:182839 HCAPLUS
DOCUMENT NUMBER:
                                 140:235609
TITLE:
                                 Fluoro- and sulfonylamino-containing 3,6-disubstituted
                                 azabicycło [3.1.0] hexane derivatives as muscarinic
                                 receptor antagonists
INVENTOR(S):
                                 Mehta, Anita; Gupta, Jang Bahadur
                                 Ranbaxy Laboratories Limited, India
PATENT ASSIGNEE(S):
SOURCE:
                                 CODEN: PIXXD2
DOCUMENT TYPE:
                                 Patent
LANGUAGE:
                                 English
FAMILY ACC. NUM. COUNT:
                                 1
PATENT INFORMATION:
      PATENT NO.
                                 KIND
                                          DATE
                                                          APPLICATION NO.
                                                                                         DATE
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           2004018422
A1 20040304 WO 2002-IB3433 20020823
W: AE, AG, AL, AM, AT, AU, AB, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, RV
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                                                                                         20020823
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

OTHER SOURCE(S): CASREACT 140:235609; MARPAT 140:235609

20051026

20060112

20060105

AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

CN 2002-829770

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IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

CN 1688544

JP 2006501236

US 2006004083

PRIORITY APPLN. INFO.:

Α

Т

A1

This invention relates to 3,6-disubstituted azabicyclo[3.1.0]hexane derivs. of formula I [wherein: Ar = (un) substituted (hetero) aryl; R1 = H, OH, CH2OH, NH2, alkoxy, carbamoyl, or halogen; R2 = C3-C7 cycloalkyl ring with 1-4 hydrogens substituted by fluorine atoms, or sulfonamide derivs.; R3 = C1-C15 (un) saturated (un) substituted hydrocarbon group; R4 and R5 are selected from H, Me, CO2H, C(O)NH2, NH2, CH2NH2; W = (CH2)0-1; X = O, S, N, bond; Y = CH(R')CO(R' = H or Me) or (CH2)0-4; Z = O, S, NR''(R'' = H)or alkyl); Q = (CH2)1-4, CHR''' (R''' = H, OH, alkyl, alkenyl, alkoxy), orCH2CHR'''' (R'''' = H, OH, alkyl, alkoxy)] useful as muscarinic receptor antagonists. Compds. I are useful for the treatment of various muscarinic receptor-mediated respiratory, urinary, and gastrointestinal system diseases; the affinity of test compds. for M2 and M3 muscarinic receptor subtypes was tested. For instance, compound II [example 2; pKi = 6.9/8.4 for the M2 and M3 receptor subtypes resp.] was prepared via amidation of phenylacetic acid derivative III by azabicyclo[3.1.0] hexane derivative IV (no yield data).

REFERENCE COUNT:

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

6

ACCESSION NUMBER:

2004:41201 HCAPLUS

DOCUMENT NUMBER:

140:111279

TITLE:

Preparation of 3,6-disubstituted

azabicyclo[3.1.0]hexane derivatives useful as

muscarinic receptor antagonists

INVENTOR(S):

Mehta, Anita; Silamkoti, Arundutt V.; Gupta, Jang

Bahadur

PATENT ASSIGNEE(S):

Ranbaxy Laboratories Limited, India

PCT-Int. Appl., 72 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PA	ATENT NO. KIND DA			DATE APPLICATION NO.								DATE					
_	WO 2004004629 A2 20040115 WO 2004004629 A3 20040521					WO 2	002-	20020708									
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PRIORITY APPLN. INFO.:			WO	2002-IB202663	A	20020708
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			WO	2003-IB1367	W	20030411
			WO	2003-IB301367	Α	20030411
			WO	2004-IB8	W	20040106
			WO	2004-IB12	W	20040107

OTHER SOURCE(S):

MARPAT 140:111279

GI

AB This invention generally relates to the derivs. of novel 3,6 disubstituted azabicyclo[3.1.0] hexanes. The title compds. [I; Ar = each (un) substituted aryl or heteroaryl having 1-2 hetero atoms selected from the group consisting of O, S and N atoms; R1 = H, HO, hydroxymethyl, amino, alkoxy, carbamoyl or halogen (e.g. F, Cl, Br, iodo); R2 = alkyl,
C3-7 cycloalkyl, C3-7 cycloalkenyl, each (un)substituted aryl or heteroaryl having 1 to 2 hetero atoms selected from a group consisting of O, S and N atoms; W = (CH2)p (where p = 0, 1); X = 0, S, N, no atom; Y =CHR5CO (wherein R5 = H, Me) or (CH2)q (wherein q = 0-4); Z = 0, S, NR10 (wherein R10 = H, C1-6 alkyl); Q = (CH2)n (wherein n = 0-4), or CHR5 (wherein R5 = H, OH, C1-6 alkyl, alkenyl alkoxy) or CH2CHR9 (wherein R9 = H, OH, C1-4 alkyl, C1-C4 alkoxy); R6, R7 = CO2H, H, Me, CONH2, NH2, CH2NH2; R4 = (un) substituted C1-15 saturated or unsatd. aliphatic hydrocarbon groups], pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs, prodrugs, or metabolites thereof are prepared These compds., e.g. $(1\alpha, 5\alpha, 6\alpha)$ -N-[[3-benzyl-3-azabicyclo[3.1.0]hexyl-6yl]methyl]-2-hydroxy-2,2-diphenylacetamide, $(1\alpha, 5\alpha, 6\alpha)$ -N-[[3-benzyl-3-azabicyclo[3.1.0]hexyl-6-yl]methyl]-2-hydroxy-2-cyclohexyl-2phenylacetamide, $(1\alpha, 5\alpha, 6\alpha)$ -N-[[3-benzyl-3azabicyclo[3.1.0]hexyl-6-yl]methyl]-2-hydroxy-2-cyclopentyl-2phenylacetamide, $(1\alpha, 5\alpha, 6\alpha)$ - [[3-benzyl-3azabicyclo[3.1.0]hexyl-6-yl]methyl] 2-hydroxy-2,2-diphenylacetate, and are muscarinic receptor antagonists which are useful, inter-alia for the treatment or prophylaxis of various diseases or disorders of the respiratory, urinary and gastrointestinal systems mediated through muscarinic receptors. In particular, the diseases or disorders are urinary incontinence, lower urinary tract symptoms (LUTS), bronchial asthma, chronic obstructive pulmonary disorders (COPD), pulmonary fibrosis, irritable bowel syndrome, obesity, and diabetes or gastrointestinal hyperkinesis.

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L9 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2007:464247 HCAPLUS

TITLE:

Pharmaceutical compositions of muscarinic receptor

antagonists

INVENTOR(S):

Ray, Abhijit; Dastidar, Sunanda G.; Shirumalla,

Rajkumar; Malhotra, Shivani

PATENT ASSIGNEE(S):

Ranbaxy Laboratories Ltd., India

SOURCE:

PCT Int. Appl., 100pp.

DOCUMENT TYPE:

CODEN: PIXXD2 Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
                                                                 KIND
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WO 2007045979
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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

APPLN. INFO:
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PRIORITY APPLN. INFO.:

IN 2005-DE2794 A 20051019

Pharmaceutical compns. are provided comprising one or more muscarinic receptor antagonists (MRA), and at least one addnl. active ingredients selected from one or more $\beta2$ -agonists, p38 MAP kinase inhibitors, PDE-IV inhibitors, corticosteroids, etc., or a mixture thereof and optionally one or more pharmaceutically acceptable carriers, excipients or diluents. In addition, methods of treating autoimmune, inflammatory or allergic diseases or disorders are provided. For example, a synergistic effect was observed with the combination of muscarinic antagonist (2R) - (1a,5a,6a) -N-[3-azabicyclo[3.1.0]hexyl-6-(aminomethyl)-yl]-2-hydroxy-2-cyclopentyl 2-phenylacetamide hydrochloride (Compound 66) with PDE-IV inhibitor roflumilast for relaxing carbachol-precontracted guinea pig isolated trachea.

REFERENCE COUNT:

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

T.9 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

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ACCESSION NUMBER:

2006:1174148 HCAPLUS

DOCUMENT NUMBER:

145:471412

TITLE:

Preparation of 3,6-disubstituted

azabicyclo[3.1.0] hexane derivatives as muscarinic receptor antagonists for use against respiratory,

urinary and gastrointestinal diseases

INVENTOR(S):

Salman, Mohammad; Kumar, Naresh; Kaur, Kirandeep;

Aeron, Shelly; Sarma, Pakala Kumara Savithru;

Dharmarajan, Sankaranarayanan; Mehta, Anita; Chugh,

PATENT ASSIGNEE(S):

Ranbaxy Laboratories Limited, India

SOURCE:

PCT Int. Appl., 79pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
                        KIND
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                                                                  DATE
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                                           WO 2006-IB51368
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             MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
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PRIORITY APPLN. INFO.:
                                           IN 2005-DE1810
                                                               A 20050503
                                           IN 2006-DE1681
                                                               A 20060328
OTHER SOURCE(S):
                        MARPAT 145:471412
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$$R^2$$
 $W-CO-X-Q$
 R^2n
 N

The present invention generally relates to azabicyclo[3.1.0] hexane derivs. (shown as I; variables defined below; e.g. N-(3-benzyl-3azabicyclo[3.1.0]hex-6-yl)-2-hydroxy-2-phenyl-2-(2-thienyl)acetamide (1)) as muscarinic receptor antagonists, which are useful, among other uses, for the treatment of various diseases of the respiratory, urinary and gastrointestinal systems mediated through muscarinic receptors. The invention also relates to the process for the preparation of disclosed compds., pharmaceutical compns. containing the disclosed compds., and the methods for treating diseases mediated through muscarinic receptors. For I: R1 is H or alkyl; R2 is straight or branched alkyl alkenyl, alkynyl, aryl, cycloalkyl, cycloalkylalkyl or heteroaryl (un) substituted with ≥1 alkyl, hydroxy or halogen. R3 is aryl or heteroaryl (un) substituted with ≥1 alkyl, hydroxy or halogen; W = -(CH2)i; Q = -(CH2)j; X is O or -N(R5)-; R4 is H, straight or branched alkyl, straight or branched alkenyl, aralkyl or heteroarylalkyl wherein the said aralkyl or heteroarylalkyl is further substituted with alkyl, -NH2 or alkoxycarbonylamino; R5 is H or alkyl; Rw is H or Me; and n, i, j = 0-2. Results of radioligand binding assays for M2 and M3 muscarinic receptors are reported for many examples of I. Methods of preparation are claimed and prepns. and/or characterization data for .apprx.120 examples of I are included. For example, 1 was prepared from hydroxy(phenyl)(thien-2yl)acetic acid and 3-benzyl-3-azabicyclo[3.1.0]hexan-6-amine in DMF using hydroxybenzotriazole, N-methylmorpholine and 1-ethyl-3-(3dimethylaminopropyl) carbodiimide.

REFERENCE COUNT:

THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

10

ACCESSION NUMBER:

2006:605804 HCAPLUS

DOCUMENT NUMBER:

145:83209

TITLE:

Preparation of azabicyclo[3.1.0]hexanes-acid addition

salts as muscarinic receptor antagonists

INVENTOR(S):

Salman, Mohammad; Kumar, Naresh; Yadav, Gyan Chand;

Sarma, Pakala Kumara Savithru

PATENT ASSIGNEE(S):

Ranbaxy Laboratories Limited, India

SOURCE:

PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATEN	T NO.			KIN	D 1	DATE	Christian (Christian III)		APPL:	ICAT:	ION I	. O <i>l</i>	DATE				
WO 20	060643	04		A1	A1 20060622 WO 2004-IB4142							20041215					
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Title compds. I [R1 = optionally substituted phenyl; R2 = optionally AB substituted alkyl with halo, optionally substituted Ph with halo, optionally substituted cycloalkyl with halo; X = -NH-, -O-, NMe; A = organic acid selected from acetic acid, succinic acid, maleic acid, etc., inorg. acid selected from hydrochloric acid, hydrobromic acid, phosphoric acid, etc. with the proviso that A can not be tartaric acid when R1 and R2 are Ph and X is -NMe] and pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, prodrugs, polymorphs and metabolites thereof were prepared For example, a mixture of (2R)-N- $[(1\alpha, 5\alpha, 6\alpha) - 3 - azabicyclo[3.1.0]$ hex-6-ylmethyl]-2-(3,3difluorocyclopentyl)-2-hydroxy-2-phenylacetamide (II) and L-tartaric acid was stirred at room temperature for 4 h to give L-tartaric acid salt of compound

I

In muscarinic receptor binding assays, the Ki values of 34 examples were in the range of from about 0.01 to about 2 nM for rat M3 receptors, from about 0.01 to about about 25 nM for rat M2 receptors. Compds. I are

claimed useful for the treatment of urinary incontinence, bronchial asthma, etc.

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2006:318950 HCAPLUS

DOCUMENT NUMBER:

144:369923

TITLE:

3-Azabicyclo[3.1.0]hexane derivatives as muscarinic

receptor antagonists and their preparation,

pharmaceutical compositions, and use for treatment of

prophylaxis of of respiratory, urinary, or

gastrointestinal diseases

INVENTOR (S):

Mehta, Anita; Salman, Mohammad; Sarma, Pakala Kumara Savithru; Aeron, Shelley; Chugh, Anita; Gupta, Suman

PATENT ASSIGNEE(S):

Ranbaxy Laboratories Limited, India PCT Int. Appl., 54 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATEN	PATENT NO.				KIND DATE		-	APPLICATION NO.						DATE			
	060352 060352			A2 20060406 A3 20060518		1	WO 2	005-		20050926							
W	CN, GE, LC, NA, SK,	AG, CO, GH, LK, NG, SL, ZA,	CR, GM, LR, NI, SM,	CU, HR, LS, NO, SY,	CZ; HU, LT, NZ,	DE, ID, LU, OM,	DK, IL, LV, PG,	DM, IN, LY, PH,	DZ, IS, MA, PL,	EC, JP, MD, PT,	EE, KE, MG, RO,	EG, KG, MK, RU,	ES, KM, MN, SC,	FI, KP, MW, SD,	GB, KR, MX, SE,	GD, KZ, MZ, SG,	
PRIORITY A OTHER SOUR	CF, GM, KG, APPLN.	IT, CG, KE, KZ, INFO	LT, CI, LS, MD,	LU, CM, MW, RU,	LV, GA, MZ, TJ,	MC, GN, NA,	NL, GQ, SD,	PL, GW, SL,	PT, ML, SZ,	RO, MR,	SE, NE, UG,	SI, SN, ZM,	SK, TD, ZW,	TR, TG,	BF, BW, AZ,	BJ, GH, BY,	

AB This invention generally relates to muscarinic receptor antagonists of formula I, which are useful, among other uses, for the treatment of various diseases of the respiratory, urinary and gastrointestinal systems mediated through muscarinic receptors. The invention also relates to the process for the preparation of disclosed compds., pharmaceutical compns. containing

the disclosed compds., and the methods for treating diseases mediated through muscarinic receptors. Compds. of formula I wherein R1 is H, C1-6 alkyl, C2-7 alkenyl, C2-7 alkynyl, cycloalkyl, (un) substituted amino, or OH and derivs.; R2 is carboxy, SO2R6, CO2R7, NH2 and derivs., or CONH2 and derivs., etc.; R3 is alkyl, alkenyl, alkynyl, cycloalkyl, (hetero)aryl, aralkyl, or heterocyclyl(alkyl); R4 and R5 are independently H, C1-6 alkyl, C2-7 alkenyl, or C2-7 alkynyl; X is O, NH and derivs., C1-6 alkyl, C2-7 alkenyl, C2-7 alkynyl, aralkyl, or aryl; Ar is (hetero)aryl or heterocyclyl; and their stereoisomers, polymorphs, pharmaceutically acceptable salts, and solvates thereof and methods for preparation are claimed. Example compound II was prepared by sulfonylation of N- $(1\alpha, 5\alpha, 6\alpha)$ - (3-azabicyclo[3.1.0]hex-6-ylmethyl)-2cyclopentyl-2-hydroxy-2-Ph acetamide with p-nitrophenylsulfonyl chloride. All the invention compds. were evaluated for their binding affinity towards muscarinic receptors. From the assay, it was determined that most of the invention compds. exhibited Ki values for M2 and M3 muscarinic receptors in the range of about 1000 nM to about 7.8 nM and 1000 nM to about 0.5 nM, resp.

L9 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:30422 HCAPLUS

DOCUMENT NUMBER: 144:114451

TITLE: Solid oral dosage forms of azabicyclo derivatives

INVENTOR(S): Rao, Korlapati Venkateswara; Karatqi, Pradeep Jai Rao;

Murthy, Ayanampudi Sri Rama

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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PATENT NO.
                                                                  KIND
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             WO 2006003587
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                                                                  AN, 20060914
AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             WO 2006003587
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                                  NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
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                                  KZ, MD, RU, TJ, TM
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             IN 2007DN00722
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                                                                                     20070427
                                                                                                                    IN 2007-DN722
                                                                                                                                                                                 20070125
PRIORITY APPLN. INFO.:
                                                                                                                    IN 2004-DE1234
                                                                                                                                                                        A 20040701
                                                                                                                    WO 2005-IB52104
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                                                                                                                                                                                20050624
             The present invention relates to solid dosage forms for oral
AB
             solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs and
             solid dosage forms can be characterized as having excellent content
             uniformity. A capsule contained (2R)-(1-alpha, 5-alpha,
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administration of an azabicyclo derivative or its pharmaceutically acceptable metabolites; and processes for the preparation of such solid dosage forms. 6-alpha) -N-[3-azabicyclohexyl-6-(aminomethyl)-yl]-2-hydroxy-2-cyclopentyl-2-Ph acetamide hydrochloride 0.10, lactose monohydrate 54.40, microcryst. cellulose 30.00, croscarmellose sodium 3.00, pre-gelatinized starch 10.00, purified water q.s., magnesium stearate 1.00, talc 1.00, and colloidal silicon dioxide 0.50 mg.

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ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN
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ACCESSION NUMBER: 2005:1075634 HCAPLUS

DOCUMENT NUMBER: 143:373316

TITLE:

Combination therapy using adrenergic receptor antagonist in combination with muscarinic receptor antagonists and testosterone 5-reductase inhibitors

for lower urinary tract symptoms

INVENTOR(S): Chugh, Anita; Tiwari, Atul

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT:

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PATENT NO.
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WO 2005092341
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       LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
       NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
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BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
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                           A1
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     WO 2005092342
                           A1
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     IN 2006DN06061
                                              IN 2006-DN6061
                           Α
                                 20070427
                                                                      20061017
PRIORITY APPLN. INFO.:
                                              WO 2004-IB842
                                                                  W 20040322
     This invention relates to combination therapy for the treatment of benign
     prostatic hyperplasia (BPH) and lower urinary tract symptoms (LUTS)
     associated with or without BPH. The combination therapy comprises of
     1\alpha adrenergic receptor (AR) subtype selective antagonist in
     combination with muscarinic receptor antagonist and optionally included
     Testosterone 5-reductase inhibitor for relief of LUTS in a subject with or
     without BPH.
REFERENCE COUNT:
                                THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
                    HCAPLUS COPYRIGHT 2007 ACS on STN
     ANSWER 7 OF 9
ACCESSION NUMBER:
                          2005:1026933 HCAPLUS
DOCUMENT NUMBER:
                          143:326636
TITLE:
                          Preparation of peptidyl sulfur compounds as inhibitors
                          of hepatitis C virus NS3 serine protease
INVENTOR(S):
                          Bennett, Frank; Lovey, Raymond G.; Huang, Yuhua;
                          Hendrata, Siska; Saksena, Anil K.; Bogen, Stephane L.;
                          Liu, Yi-Tsung; Njoroge, F. George; Venkatraman,
                          Srikanth; Chen, Kevin X.; Sannigrahi, Mousumi;
                          Arasappan, Ashok; Girijavallabhan, Viyyoor M.;
                          Velazquez, Francisco
PATENT ASSIGNEE(S):
                          Schering Corporation, USA
SOURCE:
                          PCT Int. Appl., 754 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:
                          Patent
LANGUAGE:
                          English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                                 DATE
     PATENT NO.
                          KIND
                                              APPLICATION NO.
                                                                      DATE
                          _ _ _ _
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                               <sub>e</sub> 20050922
     WO 2005087731
                           A1
                                             WO 2005-US5795
                                                                      20050224
     WO 2005087731
                           A8
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PRIORITY APPLN. INFO.:
                                             US 2004-548670P
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OTHER SOURCE(S):
                         MARPAT 143:326636
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention discloses compds. I [R1 is H, OR8, NR9R10 or CHR9R10, where R8, R9 and R10 are independently H, alkyl, aryl, heteroaryl, cycloalkyl, etc; A, M are independently R, OR, NHR, NRR', SR, SO2R or halo; or A and M form a ring; E is CH or CR; L is CH, CR, CH2CR or CRCH2; R, R', R2, R3 are independently H, alkyl, cycloalkyl, aryl, heteroaryl, etc. or NRR' is heterocyclyl; Y is (substituted) 2-mercaptoethylamino, 3-mercaptopropylamino, 2-mercaptoethoxy, 3-mercaptopropoxy or S-oxides], including stereoisomers, pharmaceutically-acceptable salts or esters, etc., which have hepatitis C virus (HCV) protease inhibitory activity and includes methods for their synthesis and use in the treatment of disorders associated with the HCV protease. Synthetic examples and tables showing products of the invention along with Ki values are given. Thus, peptide II, prepared by a multistep procedure involving peptide coupling in solution, showed Ki < 75 nM for inhibition of HCV protease.

REFERENCE COUNT: THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN
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ACCESSION NUMBER:
                        2004:182839 HCAPLUS
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DOCUMENT NUMBER: 140:235609

TITLE:

Fluoro-and sulfonylamino-containing 3,6-disubstituted azabicyclo[3.1.0] hexane derivatives as muscarinic

receptor antagonists

INVENTOR(S): Mehta, Anita, Gupta, Jang Bahadur Ranbaxy Laboratories Limited, India PCT Int. Appl., 68 pp. PATENT ASSIGNEE(S): SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT:

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PATENT NO.
                           KIND
                                    DATE
                                                     APPLICATION NO.
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                                   20040304
WO 2004018422
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PRIORITY APPLN. INFO.:
                                             WO 2002-IB3433
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OTHER SOURCE(S):
                         CASREACT 140:235609; MARPAT 140:235609
GI
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB This invention relates to 3,6-disubstituted azabicyclo[3.1.0] hexane derivs. of formula I [wherein: Ar = (un) substituted (hetero) aryl; R1 = H, OH, CH2OH, NH2, alkoxy, carbamoyl, or halogen; R2 = C3-C7 cycloalkyl ring with 1-4 hydrogens substituted by fluorine atoms, or sulfonamide derivs.; R3 = C1-C15 (un)saturated (un)substituted hydrocarbon group; R4 and R5 are selected from H, Me, CO2H, C(0)NH2, NH2, CH2NH2; W = (CH2)0-1; X = 0, S, N, bond; Y = CH(R')CO (R' = H or Me) or (CH2)0-4; Z = O, S, NR'' (R'' = H or alkyl); Q = (CH2)1-4, CHR''' = H, OH, alkyl, alkenyl, alkoxy), or CH2CHR''' (R''' = H, OH, alkyl, alkoxy)] useful as muscarinic receptor antagonists. Compds. I are useful for the treatment of various muscarinic receptor-mediated respiratory, urinary, and gastrointestinal system diseases; the affinity of test compds. for M2 and M3 muscarinic receptor subtypes was tested. For instance, compound II [example 2; pKi = 6.9/8.4 for the M2 and M3 receptor subtypes resp.] was prepared via amidation of phenylacetic acid derivative III by azabicyclo[3.1.0] hexane derivative IV (no yield data).

REFERENCE COUNT:

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L9 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN
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6

ACCESSION NUMBER:

2004:41201 HCAPLUS

DOCUMENT NUMBER: TITLE:

140:111279

Preparation of

Preparation of 3,6-disubstituted

azabicyclo.[3.1.0] hexane derivatives useful as

muscarinic redeptor antagonists

INVENTOR(S):

Mehta, Anita, Silamkoti, Arundutt V.; Gupta, Jang Bahadur

Rambaxy Laboratories Limited, India

PATENT ASSIGNEE(S): Rambaxy Laborator:
SOURCE: PCT Int. Appl., 72

OURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

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WO 2004004629
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WO 2004004629
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EP 1546099
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AU 2003226579
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This invention generally relates to the derivs. of novel 3,6 disubstituted azabicyclo[3.1.0] hexanes. The title compds. [I; Ar = each (un)substituted aryl or heteroaryl having 1-2 hetero atoms selected from the group consisting of O, S and N atoms; R1 = H, HO, hydroxymethyl, amino, alkoxy, carbamoyl or halogen (e.g. F, Cl, Br, iodo); R2 = alkyl, C3-7 cycloalkyl, C3-7 cycloalkenyl, each (un)substituted aryl or heteroaryl having 1 to 2 hetero atoms selected from a group consisting of O, S and N atoms; W = (CH2)p (where p = 0, 1); X = O, S, N, no atom; Y = CHR5CO (wherein R5 = H, Me) or (CH2)q (wherein q = 0-4); Z = O, S, NR10 (wherein R10 = H, C1-6 alkyl); Q = (CH2)n (wherein n = 0-4), or CHR5 (wherein R5 = H, OH, C1-6 alkyl, alkenyl alkoxy) or CH2CHR9 (wherein R9 = H, OH, C1-4 alkyl, C1-C4 alkoxy); R6, R7 = CO2H, H, Me, CONH2, NH2, CH2NH2; R4 = (un)substituted C1-15 saturated or unsatd. aliphatic hydrocarbon

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groups], pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs, prodrugs, or metabolites thereof are prepared These compds., e.q. $(1\alpha, 5\alpha, 6\alpha)$ -N-[[3-benzyl-3-azabicyclo[3.1.0]hexyl-6yl]methyl]-2-hydroxy-2,2-diphenylacetamide, $(1\alpha,5\alpha,6\alpha)$ -N-[[3-benzyl-3-azabicyclo[3.1.0]hexyl-6-yl]methyl]-2-hydroxy-2-cyclohexyl-2phenylacetamide, $(1\alpha, 5\alpha, 6\alpha) - N - [[3-benzyl-3$ azabicyclo[3.1.0]hexyl-6-yl]methyl]-2-hydroxy-2-cyclopentyl-2phenylacetamide, $(1\alpha, 5\alpha, 6\alpha)$ - [[3-benzyl-3azabicyclo[3.1.0]hexyl-6-yl]methyl] 2-hydroxy-2,2-diphenylacetate, and are muscarinic receptor antagonists which are useful, inter-alia for the treatment or prophylaxis of various diseases or disorders of the respiratory, urinary and gastrointestinal systems mediated through muscarinic receptors. In particular, the diseases or disorders are urinary incontinence, lower urinary tract symptoms (LUTS), bronchial asthma, chronic obstructive pulmonary disorders (COPD), pulmonary fibrosis, irritable bowel syndrome, obesity, and diabetes or gastrointestinal hyperkinesis.

=> log y COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY 65.99	SESSION 420.80
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL
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